

## **IV. DELIVERY OF ACCURATE AND USEFUL INFORMATION**

### **Completed Study Chart Contents**

1. At least two karyotypes and any worksheets (A worksheet is additional chromosomes of interest, e.g. 15's, 18's, etc. that require further analysis).
2. Additional prints of Q- or NOR-banding
3. White copy of charge slip
4. Consult sheets with written report signed by Medical and Laboratory Director.
5. Count and analysis sheets initialed by all the technicians involved in the study.
6. Chart messages. Any communication concerning the sample is listed with the time and date of the communication.

### **Reporting Times**

While the speed of turnaround is important, we feel that the accuracy of the results is more important. We do maintain monthly quality assurance reports to monitor the reporting times, appropriateness of the request, and the quality of the sample. These are reported to the hospital for its QA program and are used as an indicator of potential problems in our laboratory. Reporting times are dependent on the quality of the sample, sample type, and abnormality to be analyzed. These monthly reports are compiled by the laboratory director and laboratory supervisor.

### **Policy For Telephone Reports/Preliminary Report**

No one may report chromosome studies by telephone except the director unless they have been completed and are typed. Then laboratory personnel may read the results to the physician who requested the study. Proper identification must be given before these results are given out, i.e. UH# of the patient must be given before results are released to provide patient confidentiality.

### **Preliminary Reports**

Preliminary reports are given only when chromosome counts, analysis, and photographs have been obtained. These reports are given only in emergency situations for peripheral blood and bone marrow. Amniotic fluid reports are routinely given out by the laboratory director to the referring physician. Yes or no is checked off on the final report under "Preliminary Reports."

### **Final Reports**

Final reports are typed on the stamped consult sheets received with the sample. The final report includes:

Reason for referral

Referring physician

Date received

Date reported

ISCN designation

Explanatory paragraph. This is a written report explaining the chromosome findings. This report contains the number of cells counted, analyzed, and karyotyped. It also identifies the chromosomal sex and modal chromosome number. If abnormalities or variants are present, they are explained. Report tries to correlate chromosomal findings with phenotype.

**Note:** All slides and remaining cell pellet are retained for at least six months from completion of study. At that time those slides used for patient analysis, as well as one unstained slide, are stored in the slide trays in the microscope room. All other unused slides and cell pellet are destroyed. Copies of the final reports have always been kept as a permanent record as have slides, negatives, and prints on all cases, normal or abnormal. Currently, imaged metaphases/karyotypes are retained on disc on our new PSI imaging system.

### **Genetic Counseling**

Genetic counseling is recommended when chromosome aberrations, mosaic conditions, or unusual results are found. This service is offered and provided by Dr. Lockhart, Medical Director.

## References

References are included in the report to help the referring physician interpret the results. These references include books or journals which contain the most timely and appropriate information.

## REPORTING A SINGLE CELL ABNORMALITY

According to nationally recognized guidelines, an abnormality must be present in two cells with the same extra chromosome or structurally abnormal chromosome or three cells with the same missing chromosome to constitute criteria for a clone.

There are several circumstances when one abnormal cell will be included in the report. Some of these exceptions are listed in the following table:

### Circumstances that necessitate reporting an abnormality found in one cell

#### Condition Finding

History of spontaneous abortions 45,X or 47,XXX

Amniocentesis Common trisomies  
seen at birth  
(e.g. 13, 18, 21)

Possible Fra (X) 46,X,fra(X) or  
46,fra(X),Y

Leukemia Abnormalities  
associated with

Approved: 

specific leukemias  
(e.g. +8, 5q-, etc.)

The finding of 1-2 abnormal clones in the initial analysis will also require examination of additional cells. The course of action to be taken will be dependent on the specific literature reports, potential significance of the particular chromosome abnormality, and discretion of the laboratory director.